IMAGES IN CARDIOLOGY

Tumour feeding vessel in metastatic intracardiac mass demonstrated by transthoracic Doppler echocardiography

A 65 year old man was admitted for evaluation of recent onset of weight loss and heart murmur. Physical examination revealed a regular heart rate of 62 beats/min and a blood pressure of 110/70 mm Hg. On cardiac auscultation, a grade 4/6 systolic murmur was heard over the region of the pulmonic valve. Electrocardiography showed low voltage. Chest radiography showed normal cardiac configuration and no pulmonary abnormality was seen.

An oesophagogram and endoscopy showed an uncreative and infiltrative oesophageal cancer, which was histologically proven to be a squamous cell carcinoma. To assess the cardiac metastasis, echocardiography was performed (panel A). Histologically, the cardiac tumour was proven to have the same pathologic findings as an oesophageal cancer, compatible with carcinomatous metastasis (panel B). Interestingly, the feeding vessel in the mass was identified by echocardiography (panel C) and confirmed by coronary angiography (panel D).

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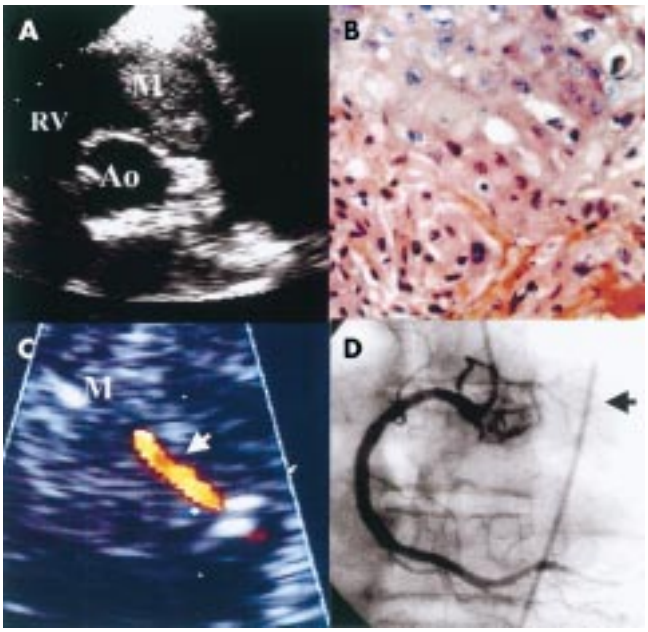

(A) Parasternal short axis view obtained by two dimensional echocardiography. The echocardiogram shows a large mass (M) in the right ventricular outflow tract. (B) Endomyocardial biopsy from the right ventricle shows the invasion of the squamous cell carcinoma (haematoxylin and eosin × 100). (C) Colour Doppler echocardiogram shows diastolic flow in the middle of the mass (arrow). (D) Coronary angiogram showing small and tortuous vessels originating from the conus branch of right coronary artery (arrow), suggesting neovascular formation at the site corresponding to the right ventricular outflow tract. M, tumour mass; Ao, aorta; RV, right ventricle

IMAGES IN CARDIOLOGY

Papillary fibroelastoma as a cause of cardioembolic stroke

A 41 year old previously healthy woman presented with left sided motor deficit. Nuclear magnetic resonance imaging of the brain showed a recent ischaemic lesion of the right thalamus. Transthoracic echocardiography was normal. A transoesophageal echocardiogram revealed a round, mobile, pedunculated, 5 mm mass attached to the commissure of the non-coronary cusp of the aortic valve (figures).The patient underwent uneventful surgery for ablation of the mass, with preservation of the aortic valve. Histologic examination diagnosed papillary fibroelastoma.

These are rare primary cardiac neoplasms, that are most often attached to valves, especially the aortic valve (followed in frequency by the mitral valve). They are usually single, small in size (< 20 mm in diameter) and may be either pedunculated or sessile. Embolic events with this tumour have been reported, although the incidence of this complication has not been well defined.

This case shows the importance of performing transoesophageal echocardiography in young patients presenting with unexplained stroke, which may identify an embolic origin amenable to treatment.

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